

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: August 9, 2002, 20:02:52 ; Search time 16.71 Seconds
(without alignments)
598.043 Million cell updates/sec

Title: US-09-622-613a-2
Perfect score: 576
Sequence: 1 ODWLTFQKKHLNTRDVCN.....TFCVTCENQAPVHFVGVGHC 104

Scoring table: BLOSUM62
Gapop 10.0 , Gapect 0.5

Searched: 283138 seqs, 96089334 residues

Total number of hits satisfying chosen parameters: 283138

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Database : PIR_71:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	544	94.4	104	2 A39035	ribonuclease-relat
2	288	50.0	111	2 A27121	ribonuclease-relat
3	284.5	49.4	111	1 JX0120	ribonuclease-relat
4	268.5	46.6	111	2 JX0085	pancreatic ribonuc
5	154	26.7	119	2 S41111	pancreatic ribonuc
6	128	22.2	124	1 NRUI	pancreatic ribonuc
7	125	21.7	128	1 NRGPB	pancreatic ribonuc
8	124	21.5	125	1 A32474	angiotensin [valida
9	123	21.4	128	1 NRCU	pancreatic ribonuc
10	122	21.2	124	1 NRMHK	pancreatic ribonuc
11	121	21.0	128	1 NRKS	pancreatic ribonuc
12	118.5	20.6	145	1 A35932	angiotensin precurs
13	117	20.3	124	1 NRPB	ribonuclease 4 (EC
14	116.5	20.2	147	2 T52489	ribonuclease 4 (EC
15	116	20.1	125	1 E43825	angiotensin - rabdi
16	114	19.8	124	1 NRCB	pancreatic ribonuc
17	113.5	19.7	155	2 JX0159	angiotensin precurs
18	113	19.6	128	1 NRY	angiotensin precurs
19	112	19.4	147	1 NRUHG	angiotensin precurs
20	111	19.3	124	1 NRHP	pancreatic ribonuc
21	111	19.3	156	2 JX0160	angiotensin - associa
22	109.5	19.0	123	1 A43825	angiotensin - pig
23	109	18.9	124	1 NRCB	pancreatic ribonuc
24	109	18.9	124	2 JX0560	pancreatic ribonuc
25	109	18.9	150	1 NRBO	pancreatic ribonuc
26	108	18.8	124	2 S08549	ribonuclease - dom
27	108	18.8	128	1 NRHO	pancreatic ribonuc
28	108	18.8	128	1 NRPO	pancreatic ribonuc
29	108	18.8	167	2 S20066	pancreatic-type ri

30	106	18.4	124	1 NRSH	pancreatic ribonuc
31	106	18.4	124	1 NRPR	pancreatic ribonuc
32	106	18.4	124	1 NRPB	pancreatic ribonuc
33	106	18.4	124	2 S07141	pancreatic ribonuc
34	105	18.2	124	1 NRBW	pancreatic ribonuc
35	105	18.2	124	1 NRGV	pancreatic ribonuc
36	104.5	18.1	119	2 JX0115	pancreatic ribonuc
37	104.5	18.1	122	1 NRKGR	pancreatic ribonuc
38	104	18.1	124	1 NRGF	pancreatic ribonuc
39	102.5	17.8	147	2 A53180	ribonuclease P13 (
40	102	17.7	124	1 NRDBO	pancreatic ribonuc
41	102	17.7	124	1 NRCM	pancreatic ribonuc
42	102	17.7	124	1 NRCM	pancreatic ribonuc
43	102	17.7	124	1 NRCM	pancreatic ribonuc
44	102	17.7	128	1 NRW2	pancreatic ribonuc
45	101	17.5	124	1 NRHY	pancreatic ribonuc

ALIGNMENTS

RESULT 1
A39035
ribonuclease-related anti-tumor protein - northern leopard frog (fragment)
C:Species: Rana pipiens (northern leopard frog)
C:Date: 31-Jul-1991 #sequence_revision 31-Jul-1991 #text_change 30-Jun-1993
C:Accession: A39035
R:Ardelt, W.; Mikulski, S.M.; Shogen, K.
J. Biol. Chem. 266, 245-251, 1991
A:Title: Amino acid sequence of an anti-tumor protein from Rana pipiens oocytes and e
A:Reference number: A39035; MUID:91093131
A:Accession: A39035
A:Status: preliminary
A:Molecule type: protein
A:Residues: 1-104 <ARD>
C:Superfamily: pancreatic ribonuclease

Query Match 94.4%; Score 544; DB 2; Length 104;
Best Local Similarity 94.2%; Pred. No. 7.5e-49;
Matches 98; Conservative 3; Mismatches 3; Indels 0; Gaps 0;
Oy 1 ODWLTFQKKHLNTRDVCNINIMSTNLFPHCKDKNTFIYSRPEVKAICKGIASKNVLT 60
Db 1 EDWLTFQKKHLNTRDVCNINIMSTNLFPHCKDKNTFIYSRPEVKAICKGIASKNVLT 60
Oy 61 SEFYISDCNVTSPCKYKLRKSTNTECVTCENQAPVHFVGVGHC 104
Db 61 SEFYISDCNVTSPCKYKLRKSTNTECVTCENQAPVHFVGVGSC 104

RESULT 2
A27121
ribonuclease-related sialic acid-binding lectin - bullfrog
C:Species: Rana catesbeiana (bullfrog)
C:Date: 19-Nov-1988 #sequence_revision 19-Nov-1988 #text_change 30-Jun-1993
R:Titani, K.; Takio, K.; Kuwada, M.; Nitte, K.; Sakakibara, F.; Kawachi, H.; Takayan
Biochemistry 26, 2189-2194, 1987
A:Title: Amino acid sequence of sialic acid-binding lectin from frog (Rana catesbeiana
A:Reference number: A27121; MUID:87299649
A:Accession: A27121
A:Molecule type: protein
A:Residues: 1-111 <TIT>
C:Superfamily: pancreatic ribonuclease
C:Keywords: lectin

Query Match 50.0%; Score 288; DB 2; Length 111;
Best Local Similarity 48.6%; Pred. No. 1.5e-22;
Matches 54; Conservative 17; Mismatches 32; Indels 8; Gaps 3;
Oy 1 ODWLTFQKKHLNTRDVCNINIMSTNLF----HCKDKNTFIYSRPEVKAICKGIASKN 56

Dd 1 ENMAFQCKHIILPIINCNTIMDNNIIYVGQCKRVNTHFIISATVTKALCTGVI -NMN 59

Oy 57 VLTSPSEFLSNC---NWTSRPCRYKLRKSTNTFCYTCENQAPVHHVGVGHC 104
 ||||| : | : : : ||| : : : ||| ||||| ||||| : | : : |
Db 60 VLSTTRFQLNCTRTSIIRPCCPYSSRTEIIVICVCENQYPVHPAGIGRC 110

RESULT 3

JX0120

ribonuclease-related sialic acid-binding lectin - Japanese frog

C:Species: Rana japonica (Japanese frog)

C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999

C:Accession: JX0120

R:Kamiya, Y.; Oyama, R.; Sakakibara, F.; Nitta, K.; Kawachi, H.; Takayanagi, J. Biochem. 108, 139-143, 1990

A:Title: Amino acid sequence of a lectin from Japanese frog (*Rana japonica*) eggs.

A:Accession: JX0120
A:Molecule type: protein
A:Residues: 1-111 <RAM>
A:Experimental source: egg
C:Superfamily: pancreatic ribonuclease
C:Keywords: lectin; pyroglyutamic acid
F:1/Modified sites: pyroglutamate carboxylic acid (Glu) #status experimental
F:15-72,73-82,52-97,94-111/Disulfide bonds: #status experimental

Query Match	49.4%	Score 284.5	DB 1	Length 111
Best Local Similarly	45.0%	Pred. No. 3.5e-22		
Matches 50	Conservative 19	Mismatches 35	Indels 7	Gaps 2

OY 1 QDWLTFQKHLNTRDVCNIIMSTNLF----HCKDKNTFYISRPEPVAICIGKIATSKN 56
| | | | | : : : | | | | | : :
Db 1 QWMAFEQEKHPTNSINMCNTIMDKSIYIVGGQCKERNTFISSATTVAICSGASTNRN 60

QY 57 VLTTFEFLSDC---NVTSRPCKKLLKSTNTFCVYCENQAPRHFVGVC 104
||::|::| ||::|::| ||::|::| ||::|::|
Db 61 VLSTFRQLNCIRSATAPRPCPYNSRTENVICVGCENRLPHFAGISGC 111

RESULT 4
JX0085
pancreatic ribonuclease (EC 3.1.27.5) - bullfrog
C:Species: Rana catesbeiana (bullfrog)
C:Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 05-Aug-1994
C:Accession: JX0085
R:Nitta, R.; Katayama, N.; Okabe, Y.; Iwama, M.; Watanabe, H.; Abe, Y.; Okazaki, T.; Ohguchi, H.
J. Biochem. 106, 729-735, 1989
A:Title: Primary structure of a ribonuclease from bullfrog (*Rana catesbeiana*) liver.
J:Reference number: JX0085; MUID:90130374

A: Molecule type: protein
A: Residues: 1-111 <N17>
C: Superfamily: pancreatic ribonuclease
C: Keywords: hydrolase; pyroglutamic acid
F: 1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F: 10/33/104/active site: His, Lys, His #status predicted
F: 15/-72/34-82/52-97/94-111/Disulfide bonds: #status predicted

Query Match	46.6%	Score 268.5;	DB 2,	Length 111;
Best Local	43.28;	Pred. No. 1.5e-20;		
Matches	48;	Conservative	37;	Indels 7; Gaps 2
		Mismatches	37;	

OY 1 QDWLTFQKKHLNTRDYDCNIIMSTNLF----HCKDKNTFIYSRPEPVKAICGGIATSKN 56
 | :|::|| :: ||| | :|::||| | :|||| |:
Dd 1 QWMAFEKEKHTIRSTSIDCNTIMDKAIYYIGGCKCENTFIISSEDNVAKICSGVSPDRK 60C

OY 57 VLTTFSEFYLSDC---NVTSRPCKYKLLKKSTNTFCVTCENAPVHVEGVGHC 104
| : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
61 ELSTTSFKLNTCIRDSTIPRCPYHPSPDNKKICVKCEKQLPVHFVGIGKC 111

Db

RESULT 5
S41111
pancreatic ribonuclease - common iguana
C:Species: Iguana iguana (common iguana)
C:Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 21-Aug-1998
C:Accession: S41111
R:Zhao, W.; Belantema, J.J.; Hofsteenge, J.
Eur. J. Biochem. 219, 641-646, 1994
A:Title: The amino acid sequence of iguana (Iguana iguana) pancreatic ribonuclease.
A:Reference number: S41111; MUID:94139745
A:Accession: S41111
A:Status: preliminary
A:Molecule type: protein
A:Residues: 1-119 <ZHA>
C:Superfamily: pancreatic ribonuclease

Query Match	26.7%;	Score 154;	DB 2;	Length 119;
Best Local Similarity	30.7%;	Pred. No. 9.4e-09;		
Matches 35;	Conservative 20;	Mismatches 43;	Indels 16;	Gaps 5;

```

QY      1 QDWLFEQKKHL-----INTRDVDCNIIM---STNLEHCKDKDKTFIYSRPEPVKAIC-K 49
      |||: |||: | : |::| : | ||: ||::| : ||:
Db      1 QDWSSEONKHIDYPETASNPNAVCYDLMDGRNLNPTKCTRTFTVHASPSSEIQVCGSG 60

```

```
QY      50 GIATSKNVLTTSE-FYLSDC---NTSRPCKIKYLKSTNFVCVTCENAPVHF 98
          | : : : | : ||         |   : ||| ||||
Db      61 GHYEEDNLVDNSNESFDLTDCKKNVGTAAPSCKYNGTPTGTRIRIACENNQPVHF 114
```

RESULT 6
NRUI
pancreatic ribonuclease (EC 3.1.27.5) - culs
N:Alternate names: RNase 1; RNase A
C:Species: Galea musteloides (culs)
C>Date: 03-Aug-1984 #sequence_revision 03-Aug-1984 #text_change 04-Oct-1996
C:Accession: A00827
R:Belintema, J.-J.; Neuteboom, B.
J Mol. Evol. 19, 145-152, 1983
A:Title: Origin of the duplicated ribonuclease gene in gulnea-plg: comparison of thea
A:Reference number: A92957; MUID: 87036770

A:Accession: 529
 A:Note: About one-third of the molecules lacked Ala-1
 C:Comment: The cuts is a rodent belonging to the same subfamily as the guinea pig
 C:Superfamily: Pancreatic ribonuclease
 C:Keywords: glycoprotein; hydrolysis; nucleic acid digestion; pancreas
 F:12.41.119/Active site: His_Lys, His #status predicted
 F:26-84,40-95,58-110,65-72/Disulfide bonds: #status predicted
 F:94/Binding site: carbohydrate (asn) (covalent) #status absent

Query Match	22.2%	Score 128;	DB 1;	Length 124;
Best Local Similarity	30.6%	Pred. No. 4.6e-06;		
Matches 37; Conservative	18;	Mismatches 34;	Indels 32;	Gaps 7;

```

Oy      4  LTFQKKHL-----TTPRDVDCNIM---STNLFHCKDKNTFIYSRBPVKAIGKIIA 53
      :  ::::  |||  :  :  ||  ::::  :  ::::  :
Db      6  MKFQRHMDSDCHPDTNITN--YCNEMMVRSMITQGRCKPVPNFVEHLEAVQAVC---S 59

```

```
Qy 54 SKN-----LTTSEFYSDCNVTSRP---CKYIKKSTJNFCVTEEN--QAPVH 97
    ||      : | :||| ||| | :| :| :| :| :| :| :| :| :| :| :| :|
Db 60 QKNVFCCKNGQTCNYGSHSSMRITDCRAVYISSSKYPNCSTYRMTQAQKSIIVACEGTPSYPVH 119
```

QY	98	F	98
Db	120	F	120

RESULTS

A:Accession: A324/4
A:Molecule type: protein
A:Residues: 1-125 <BON>
A:Experimental source: Plasma
R:Maes, P.; Damart, D.; Rommens, C.; Montreuil, J.; Spik, G.; Tartar, A.
FEBS Lett. 241, 41-45, 1988
A:Title: The complete amino acid sequence of bovine milk angiotensin.
A:Reference number: S02001; MUID:89065101
A:Accession: S02001
A:Molecule type: protein
A:Residues: 1-125 <MAE>
A:Experimental source: milk
R:Chachaya, K.R.; Shapiro, R.; Riordan, J.F.; Vallee, B.L.
submitted to the Brookhaven Protein Data Bank, January 1995
A:Reference number: A65065; PDB:1AG1
A:Contents: annotation: X-ray crystallography, 1.5 angstroms, residues 1-125
R:Chachaya, K.R.; Shapiro, R.; Riordan, J.F.; Vallee, B.L.
Proc. Natl. Acad. Sci. U.S.A. 92, 2949-2953, 1995
A:Title: Crystal structure of bovine angiotensin at 1.5 Angstroms resolution.
A:Reference number: A58315; MUID:95224057
A:Contents: annotation: X-ray crystallography, 1.5 angstroms
R:Lequin, O.; Albarot, C.; Bontems, F.; Spik, G.; Lallemand, J.Y.
submitted to the Brookhaven Protein Data Bank, April 1996
A:Reference number: A65709; PDB:1G1O
A:Contents: annotation: conformation by (1)H-NMR, residues 1-125
R:Lequin, O.; Albarot, C.; Bontems, F.; Spik, G.; Lallemand, J.Y.
Biochemistry 35, 8870-8880, 1996
A:Title: Solution structure of bovine angiotensin by (1)H nuclear magnetic resonance spect

RESULT 10
NRMHK
pancreatic ribonuclease (EC 3.1.27.5) - minke whale
N;Alternate names: RNase 1; RNase A
C;Species: Balaeoptera acutirostrata (minke whale, lesser rorqual)
C;Date: 24-Apr-1984 #sequence_revision 24-Apr-1984 #text_change 03-Jun-1994
C;Accession: A00818
R;Emmens, M.;Welling, G.W.;Beintema, J.J.
B;Biochem. J. 157, 317-323, 1976
;Title: The amino acid sequence of pike whale (lesser rorqual) pancreatic ribonuclease

```

A:Reference number: A00818; MUID:76277855
A:Accession: A00818
A:Molecule type: protein
A:Residues: 1-124 <EM>
C:Superfamily: pancreatic ribonuclease
C:Keywords: glycoprotein; hydrolase; nucleic acid digestion; pancreas
F:12,41,119/Active site: His, Lys, His #status predicted
F:26-84,40-95,58-110,65-72/Disulfide bonds: #status predicted
F:76/Binding site: carbonydrate (Asn) (covalent) (partial) #status experimental

Query Match 21.2%; Score 122; DB 1; Length 124;
Best Local Similarity 28.6%; Pred. No.1.9e-05;
Matches 34; Conservative 15; Mismatches 42; Indels 28; Gaps 6;

OY 4 LRFQKKHLNTRDVD----CNIIMTNLF---HCKDKMTFYSRPEPKAICKIILSK 55
   :|::|::|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|
Db 6 MKFRQHHMDSGSPGNPNPYCNQMMRRKMTQGRCKPVTFTVHESLEDAKVC----SK 61
   :|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|

OY 56 NVL-----TTSEFYLSDCNVTSRP---CKRYLKSTNFCVTCENO--APVHF 98
   |||:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|
Db 62 NVLCKNGKRTNCEVNSSTHMTIDCROTGSCKYVNCAYKTSQKREKHTIVACEGNPVYPHF 120
   |||:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|

RESULT 11
NRKS
pancreatic ribonuclease (EC 3.1.27.5) - casitragua
C:Species: Proechimys guairae (casitragua)
C:Date: 17-Mar-1987 #sequence_revision 17-Mar-1987 #text_change 30-Sep-1993
A:Accession: A00821
R:Belintema, J.U.; Knol, G.; Martena, B.
Biochim. Biophys. Acta 705, 102-110, 1982
A:Title: The primary structures of pancreatic ribonucleases from African porcupine and
A:Reference number: A50644; MUID:83000399
A:Accession: A00821
A:Molecule type: protein
A:Residues: 1-128 <BR>
A:Note: residues 67-78 were positioned primarily by homology with other ribonucleases
C:Superfamily: pancreatic ribonuclease
C:Keywords: glycoprotein; hydrolase; nucleic acid digestion; pancreas
F:12,41,119/Active site: His, Lys, His #status predicted
F:26-84,40-95,58-110,65-72/Disulfide bonds: #status predicted
F:34/Binding site: carbonydrate (Asn) (covalent) #status experimental

Query Match 21.0%; Score 121; DB 1; Length 128;
Best Local Similarity 29.9%; Pred. No.2.5e-05;
Matches 35; Conservative 18; Mismatches 36; Indels 28; Gaps 7;

OY 6 FQKKHL-----TNTRDVCNIIM-STNLF--HCKKNFTFYSRPEPKAICGIILSKNV 57
   ||::|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|
Db 8 FQRRHIDSSGSPSTPNPNCNMMKSRMTQERCKPVTFTVHESLEDAVC---FQKNV 63
   ||:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|

OY 58 -----LTTSEFYLSDCNVTSR---PCKRYLKSTNFCVTCENO--APVHF 98
   ||:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|
Db 64 PCKNGQSNCEYESTSMNHITDCRLTNSKRPDCLYRTSQEKEKIIYACGSPVYPVHF 120
   ||:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|

RESULT 12
A55932
angiogenin precursor - mouse
N:Alternate names: angiogenes factor
N:Contains: ribonuclease (EC 3.1.27.-)
C:Species: Mus musculus (house mouse)
C:Date: 09-Nov-1990 #sequence_revision 09-Nov-1990 #text_change 18-Jun-1999
A:Accession: A55932
R:Bond, M.D.; Vallee, B.L.
Biochem. Biophys. Res. Commun. 171, 988-995, 1990
A:Title: Isolation and sequencing of mouse angiogenin DNA.
A:Reference number: A55932; MUID:91025023
A:Accession: A55932
A:Status: not compared with conceptual translation
A:Molecule type: DNA

```

A:Residues: 1445 <BON>
A:Cross-references: GB:U22516; NID:g726325; PIDN:AAA91366.1; PID:g726326
C:Genetics:
A:Introns: #status absent
C:Function:
A:Description: hydrolytic rRNA: induces vascularization of normal and malignant tissue
C:Superfamily: pancreatic ribonuclease
C:Keywords: angiotensin; hydrolase; nucleic acid degradation; pyroglutamic acid
F:1-24/Domain: signal sequence #status predicted <Sig>
F:125-145/Product: angiotensin #status predicted <Mat>
F:25/Modified site: pyrrolidone carboxylic acid (Gln) (in mature form) #status predicted
F:37,64,137/Active site: His, Lys, His #status predicted
F:30-104,63-115,81-130/Disulfide bonds: #status predicted

```

Query Match      20.6%; Score 118.5; DB 1; Length 145;
Best Local Similarity 35.5%; Pred. No. 5.1e-05;
Matches 27; Conservative 11; Mismatches 31; Indels 7; Gaps 3;

OY 30 CKDKNTFYRSRPPEVKAIC--KGIASKNV-LTTSFYLSDCNVTs----RPCKYKLKKS 82
      ||| |||| : |||| : : : : : ||| :
Db 63 CKDVTFTFGHGSKNIKATKAGNSGSPYRENLMSKSPPOVTTCKTKTGSPPRPCCGYRASG 122
      : ||| ||||

OY 83 TINFVCVTGENQAPVHF 98
      : ||| ||||
Db 123 FRHVVIACENGLPVPVF 138

RESULT 13
NRPG
pancreatic ribonuclease (EC 3.1.27.5) - pig
N:Alternate names: RNase 1; RNase A
C:Species: Sus scrofa domestica (domestic pig)
C:Date: 24-Apr-1984 #sequence revision 24-Apr-1984 #text_change 03-Jun-1994
C:Accession: A92071; A91391, A00816
R:Jackson, R.L.; Hirs, C.H.W.
J. Biol. Chem. 245, 637-653, 1970
A:Title: The primary structure of porcine pancreatic ribonuclease. II. The amino acid
A:Reference number: A92071; MUID:70104197
A:Accession: A92071
A:Molecule type: protein
A:Residues: 1, Q, 3-124 <JAC>
R:Wierenga, R.K.; Hutzlenga, J.D.; Gaastra, W.; Welling, G.W.; Beintema, J.J.
FEBS Lett. 31, 181-185, 1973
A:Title: Affinity chromatography of porcine pancreatic ribonuclease and reinvestigati
A:Reference number: A91391
A:Accession: A91391
A:Molecule type: protein
A:Residues: 1-124 <WIE>
R:Pheilan, J.J.; Hirs, C.H.W.
J. Biol. Chem. 245, 654-661, 1970
A:Title: The primary structure of porcine pancreatic ribonuclease. III. The disulfide
A:Reference number: A92072; MUID:70104198
A:Contents: annotation; disulfide bonds
C:Superfamily: pancreatic ribonuclease
C:Keywords: glycoprotein; hydrolase; nucleic acid digestion; pancreas
E:21,34,76/Binding site: carboxylate (asn) (covalent)#status experimental
E:26-84,40-95,58-110,65-72/Disulfide bonds: #status experimental

Query Match      20.3%; Score 117; DB 1; Length 124;
Best Local Similarity 29.9%; Pred. No. 6.2e-05;
Matches 35; Conservative 14; Mismatches 40; Indels 28; Gaps 7;

OY 6 FQKKHLTNRDVT-----CNIMSTNLF--HCKDKNTFYRSRPPEVKAICGI-I 52
      ||| : : ||| : ||| : ||| : ||| :
Db 8 FQRIQM----DPDSSSSNSNYCNLMMSRRMTGGRCKPVTFFVHESLADYQVCSQI 63
      : : : : : : : : : : : : : : :

OY 53 ASKNVLT-----TSEFYLSDCNVTSRP----CKRKIKKSTFTFCVTGENQ--APVHF 98
      ||| : : ||| : ||| : ||| : ||| :
Db 64 NCKNGQNTCYGASNSTMTHTDCRQTGSSSKYPKCAKASQEOEKHIIIVACEGNPVPVHF 120

```

RESULT 14

152489

ribonuclease 4 (EC 3.1.-.-) precursor - human

N:Alternate names: RNase 4

C:Species: Homo sapiens (man)

C>Date: 02-Jul-1996 #sequence_rev: 102-Jul-1996 #text_change: 22-Jun-1999

C:Accession: 152489 #sequence: S60163; S38272

R:Sano, M.; Futami, J.; Tashima, Y.; Akutagawa, K.; Kosaka, M.; Tada, H.; Yamada, H.

Biochim. Biophys. Acta 1261, 424-426, 1995

A>Title: Molecular cloning and expression of human ribonuclease 4 cDNA.

A:Reference number: 152489; MUID: 95260866

A:Accession: 152489

A>Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: mRNA

A:Residues: 1-147 <RES>

A:Cross-references: GB:D37931; NID:9976228; PIDN:BA07150.1; PID:9976229

R:Nosenberg, H.F.; Dyer, K.D.

Nucleic Acids Res. 23, 4290-4295, 1995

A>Title: Human ribonuclease 4 (RNase 4): coding sequence, chromosomal localization and

A:Reference number: S60163; MUID: 96091174

A:Accession: S60163

A>Status: preliminary

A:Molecule type: DNA

A:Residues: 29-53, 'D', 55-147 <ROS>

A:Cross-references: EMBL:U36775; NID:91040977; PIDN:AAA96750.1; PID:91040978

R:Zhou, H.M.; Strydom, D.J.

Eur. J. Biochem. 217, 401-410, 1993

A>Title: The amino acid sequence of human ribonuclease 4, a highly conserved ribonuclease

A:Reference number: S38272; MUID: 94039064

A:Accession: S38272

A:Molecule type: protein

A:Residues: 29-147 <ZHO>

C:Genetics:

A:Gene: GDB:RNASE4

A:Cross-references: GDB:6108046; OMIM:601030

A:Map position: 14q24-q31

A:Introns: #status absent

C:Superfamily: pancreatic ribonuclease

C:Keywords: hydrolase

F:40,68,144/active site: His, Lys, His #status predicted

F:53-109,67-120,85-135,92-99/disulfide bonds: #status predicted

Query Match

B43825

angiotensin - rabbit

C:Species: Oryctolagus cuniculus (domestic rabbit)

C>Date: 10-Sep-1999 #sequence_rev: 10-Sep-1999 #text_change: 10-Sep-1999

C:Accession: S29833; B43825

R:Bond, M.D.; Strydom, D.J.; Vallee, B.L.

Biochim. Biophys. Acta 1162, 177-186, 1993

A>Title: Characterization and sequencing of rabbit, pig and mouse angiotensins: discerne

A:Reference number: S29833; MUID: 93192291

A:Accession: S29833

A>Status: preliminary

A:Molecule type: protein

A:Residues: 1-125 <BON>

A>Note: submitted to the Protein Sequence Database, December 1992

C:Superfamily: pancreatic ribonuclease

C:Keywords: pyroglutamic acid
F:1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental

Query Match

Best Local Similarity 20.1%; Score 116; DB 1; Length 125;

Matches 24; Conservative 13; Mismatches 32; Indels 8; Gaps 3;

QY 30 CKDKNTFIYSRPEPVKAICK---GIISKNV-LTTSFYLSDCNVTS---RPCKYKLUK 81

Db 39 CKDTNFTVHGNGKSIKQVCEEDKNGKPYGKNFRISKSSFOYTTCKHVGSGPWPPCRATRS 98

QY 82 STNFTCVTCENQAPVHF 98

Db 99 GSRNIVVACENGLPVHF 115

Search completed: August 9, 2002, 20:05:08
Job time: 136 sec

